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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,342	09/26/2003	Hiroaki Etoh	JP920020149US1	9697

7590 12/12/2006

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EXAMINER
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LASHLEY, LAUREL L

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,342	<b>Applicant(s)</b> ETOH ET AL.	
	<b>Examiner</b> Laurel Lashley	<b>Art Unit</b> 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1 – 18 are pending and have been examined.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 – 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Porras et al. in US Patent No. 6711615 (hereinafter US '615).
4. As for claim 1, US '615 discloses:

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A communications monitoring system comprising: a communications sensor for receiving communications packets flowing at arbitrary points on a network; and a similarity calculator for calculating formal similarity between two packet streams composed of communications packets entering the sensor upon arrival of the communications packets. (see column 1, line 52, 56 – 61; column 5, lines 46 – 50, 58 – 61; Abstract)

For claim 2, US '615 discloses:

The communications monitoring system according to claim 1, wherein the similarity calculator represents the two packet streams by graphs depicting amounts of data in communications packets in respective packet streams with respect to elapsed time, and calculates similarity between the two packet streams based on size of regions enclosed by the two graphs when the graphs of the packet streams are moved close to each other without intersecting each other. (see column 6, lines 7 – 15)

For claim 3, US '615 discloses:

The communications monitoring system according to claim 1, wherein the communications sensor sends out a predetermined alert according to a similarity value calculated by the similarity calculator. (see column 4, lines 64 – 66; column 8, lines 23 – 39, 57 – column 9, lines 1 – 5)

As for claim 4, US '615 discloses:

A communications monitoring system comprising: a packet input means for receiving communications packets flowing at arbitrary points on a network; and matching means for performing real-time matching between two packet streams composed of communications packets received by the packet input means. (see column 1, line 52, 56 – 61; column 5, lines 46 – 50, 58 – 61; Abstract)

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For claim 5, US '615 discloses:

The communications monitoring system according to claim 4, wherein the matching means determines formal similarity between the two packet streams based on a time lag between each corresponding pair of communications packets in the two packet streams. (see column 6, lines 7 – 15)

For claim 6, US '615 discloses:

The communications monitoring system according to claim 5, further comprising alerting means for sending out a predetermined alert according to the formal similarity between the two packet streams determined by the matching means. (see column 4, lines 64 – 66; column 8, lines 23 – 39, 57 – column 9, lines 1 – 5)

As for claim 7, US '615 discloses:

A communications monitoring method for monitoring data communications using a computer, comprising the steps of: acquiring communications packets in sequence from arbitrary points on a network and storing them in predetermined storage means together with information about a packet stream to which the communications packets belong; on reception of a predetermined communication packet, taking another communications packet received within a predetermined time before acquiring a predetermined communications packet, out of the storage means; determining formal similarity between the first packet stream which contains up to the acquired communications packet and a second packet stream to which the communications packet taken out of the storage means belong; and sending out a predetermined alert according to the determined similarity. (see column 1, line 52, 56 – 61; column 5, lines 46 – 50, 58 – 61;

Abstract)

For claim 8, US '615 teaches:

The communications monitoring method according to claim 7, wherein in the step of determining

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the formal similarity of packet streams, the formal similarity between the two packet streams is determined based on a time lag between each corresponding pair of communications packets in the two packet streams. (see column 6, lines 7 – 15)

For claim 9, US '615 teaches:

The communications monitoring method according to claim 7, further comprising a step of discarding information used in determining the similarity of second packet streams except the second packet stream determined to be most similar to the first packet stream. (see column 6, lines 7 – 15; column 8, lines 23 – 39, 57 – column 9, lines 1 – 5)

As for claim 10, US '615 teaches:

An information processing method comprising comparing two packet streams flowing on a network, the step of comparing comprising the steps of: acquiring communications packets in sequence from arbitrary points on a network and storing them in predetermined storage means together with information about a packet stream to which the communications packets belong; on reception of a predetermined communication packet, taking another communications packet received within a predetermined time before acquiring a predetermined communications packet, out of the storage means; and performing matching between the first packet stream which contains up to the acquired communications packet and a second packet stream to which the communications packet taken out of the storage means belong. (see column 1, line 52, 56 – 61; column 5, lines 46 – 50, 58 – 61; Abstract)

For claim 11, US '615 teaches:

The information processing method according to claim 10, wherein in the step of performing matching between the packet streams, the first and second packet streams are represented by graphs which depict increments of sequence numbers of communications packets in respective packet streams with respect to elapsed time and the similarity between the two packet streams

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is calculated based on size of regions enclosed by the two graphs when the graphs of the packet streams are moved close to each other without intersecting each other. (see column 6, lines 7 – 15)

For claim 12, US '615 teaches:

The information processing method according to claim 11, wherein in the step of calculating the similarity between the packet streams, information used in determining the similarity is discarded according to time-axis lengths of the regions enclosed by the two graphs. (see column 6, lines 7 – 15; column 8, lines 23 – 39, 57 – column 9, lines 1 – 5)

For claim 13, US '615 teaches:

An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing communications monitoring, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 7. (see Figure 6)

For claim 14, US '615 teaches:

A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for communications monitoring, said method steps comprising the steps of claim 7. (see Figure 6)

For claim 15, US '615 teaches:

An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing information processing, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 10. (see Figure 6)

For claim 16, US '615 teaches:

A program storage device readable by machine, tangibly embodying a program of instructions

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executable by the machine to perform method steps for information processing, said method steps comprising the steps of claim 10. (see Figure 6)

For claim 17, US '615 teaches:

A computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing communications monitoring, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect the functions of claim 1. (see column 2, lines 32 – 36; Figure 6)

For claim 18, US '615 teaches:

A computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing communications monitoring, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect the functions of claim 4. (see column 2, lines 32 – 36; Figure 6)

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Judge et al. in US Patent No. 7124438 discloses a system and method for anomaly detection in patterns of monitored communications. Copeland, III in US PGPub No. 20020144156 discloses network port profiling and in US PGPub No. 20030105976 teaches flow-based detection of network intrusions.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel Lashley whose telephone number is 571-272-0693. The examiner can normally be reached on Monday - Thursday, alt Fridays btw 7:30 am & 5 pm.



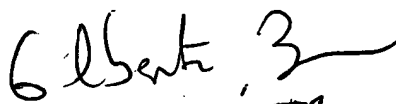
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, Jr. can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laurel Lashley  
Examiner  
Art Unit 2132

 04 December 2006  
LL

  
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